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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,302

10/27/2006

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EXAMINER

HEINCER, LIAM J

ART UNIT

PAPER NUMBER

1709

MAIL DATE

DELIVERY MODE

07/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,302	Applicant(s) HIROSE ET AL.	
	Examiner Liam J. Heincer	Art Unit 1709	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 6 and 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/2006, 02/2007, 06/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 6 and 16-19 are objected to because of the following informalities: in line one of each of these claims there is a typo that reads "differential scanning colorimetry" instead of differential scanning calorimetry. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Autran (US 2003/0204027) in view of Shimizu (2002/0173583) taken with McGraw "New Uses for Kenaf".

Regarding Claim 1: Autran teaches a composition comprising a polyhydroxyalkanoate (¶0042) produced by biological organisms/microorganisms (¶0065) comprising a repeating unit as stated in the instant claim (Formulas I and II). Autran also teaches adding a filler to the composition (¶0113).

Autran does not teach the filler being made of kenaf fibers. However, Shimizu teaches using a kenaf filler in a filled polymer (¶0028). Autran and Shimizu are combinable as they are concerned with the same field of endeavor, namely filled polymer compositions. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used kenaf as the filler in the composition of Autran and the motivation would have been, as McGraw suggests, that kenaf is unlikely to warp under extreme temperature (pg. 15).

Regarding Claims 2: Autran teaches using a copolymer that is a poly (3-hydroxybutyrate-3-hydroxyhexanoate) (¶0089 and 0091).

Regarding Claim 3: Autran teaches the ratio of hydroxybutyrate to hydrohexanoate as being from 99/1 to 80/20 (¶0091).

Regarding Claims 4, 11, and 12: Autran teaches the basic compositions of claims 1, 2 and 3. Autran also teaches the polyalkanoate as being present in an amount between 99 to 30% by weight of the composition.

Autran does not teach the kenaf fibers accounting for 1 to 70% of the composite by weight. However, Shimizu teaches using kenaf fibers in an amount that is between 1 and 70% by weight (¶0009). It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used the kenaf in the amount described in Shimizu in the composition of Autran and the motivation would have been, as Shimizu suggests, that it will increase heat resistance (¶0002).

Regarding Claims 5 and 13-15: Autran teaches the basic compositions of claims 1-4.

Autran does not teach the maximum fiber length of the kenaf fibers being shorter than 20 mm. However, Shimizu teaches using fibers that are less than 20 mm in length (¶0029). It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used fibers of the length of Shimizu in the composition of Autran and the motivation would have been, as Shimizu suggests, that using fibers of this length provides an easiness in mixing (¶0029).

Regarding Claim 8: Autran teaches making a plastic article through injection molding (¶0048).

Regarding Claim 9: Autran teaches making a film or sheet from the composition (¶0068).

Regarding Claim 10: Autran teaches mixing the components of the composition (¶0110) prior to processing the composition (¶0117). Therefore the percentage of the kenaf fibers present on the surface of the molded product will be equivalent to the amount of kenaf fiber in the composition. Since the composition can contain less than 50% kenaf fibers the surface area can be less than 50% kenaf fibers in certain embodiments.

Regarding Claims 6, 7, and 16-20: Autran teaches the basic compositions of claims 1-5.

The Office realizes that all of the claimed effects or physical properties are not positively stated by the reference(s). However, the reference(s) teaches all of the claimed ingredients. Therefore, the claimed effects and physical properties, i.e. a lower melting point or a flexural modulus value would implicitly be achieved by a composition with all the claimed ingredients. If it is the applicant's position that this would not be the case: (1) evidence would need to be provided to support the applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties with only the claimed ingredients.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO form 892.

Correspondence

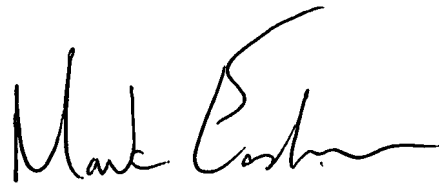
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liam J. Heincer whose telephone number is 571-270-3297. The examiner can normally be reached on Monday thru Friday 7:30 to 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LJH LH

June 25, 2007



MARK EASHOO, PH.D
PRIMARY EXAMINER

28/ Jun 07